Mixed Amphetamine Salts Extended Release for the Treatment of ADHD

By Joseph Biederman, MD

Attention-deficit/hyperactivity disorder (ADHD) is widely recognized as one of the most common psychiatric disorders initially diagnosed and treated in childhood; however, it is less widely recognized as a disorder that often persists into adolescence and adulthood. In recent years, there has been increased awareness that adult ADHD is marked by significant impulsivity and impairments of attention and executive function, symptoms that can be linked to personal, social, and professional dysfunction. Clinicians are increasingly recognizing adult ADHD as a disorder linked to considerable dysfunction and distress, warranting appropriate pharmacologic treatment.

Psychostimulants, such as amphetamines and methylphenidate, are recommended as first-line pharmacotherapeutic agents for the management of ADHD in children, adolescents, and adults. Because most research on psychostimulant use has involved pediatric ADHD patients, little is known about the safety and efficacy of these agents in adult ADHD. Certain issues specific to adult patients clearly demand evaluation, such as effective and safe dosing in larger individuals, administration in patients taking multiple medications, and the medical concerns surrounding the long-term administration of controlled substances in medically healthy adults.

This supplement provides clinicians with the most up-to-date information available on the use of mixed amphetamine salts extended release (MAS XR) in adults with persistent ADHD symptoms. Because pharmacokinetic results obtained in children may not apply to adult patients, separate investigations have been performed with MAS XR in adults. Susan B. Clausen, PhD, and colleagues, describe the pharmacokinetics of MAS XR in adults following single and multiple oral doses ranging from 20–60 mg/day. With the potential use of higher MAS XR doses in adult patients, the investigators examined the dose proportionality and steady-state plasma pharmacokinetic variables of the D- and L-isomers found in this agent.

Joseph Biederman, MD, and colleagues, report on the results of perhaps the largest and longest follow-up study of stimulant treatment in >200 adults with ADHD, detailing the effects of up to 24 months of MAS XR therapy on key safety and efficacy parameters. Additional quality-of-life measures are also described, documenting the effects of MAS XR on specific aspects of patient satisfaction in work and family roles during continuing therapy.

In a separate report derived from the previously mentioned study, Richard H. Weisler, MD, and colleagues, focus on the cardiovascular safety of long-term MAS XR treatment. All psychostimulant agents have sympathomimetic effects that could potentially increase blood pressure and heart rate. Although the cardiovascular effects of stimulants in children appear to be small and clinically insignificant, such potential changes are of particular concern in adult patients, since risk of underlying cardiovascular disease increases with advancing age. Detailed here are vital sign assessments and electrocardiographic measurements obtained in this cohort throughout up to 24 months of follow-up.

Effectiveness of MAS XR under less controlled conditions is also beginning to be characterized in the context of the Quality of Life, Effectiveness, Safety, and Tolerability (QU.E.S.T) study, a large multicenter, open-label investigation conducted in community practice settings. David W. Goodman, MD, and colleagues, provide the first interim report on findings from QU.E.S.T., with the aim of providing a description of MAS XR therapy and clinical response in a broad spectrum of adult patients that may more closely approximate results in real-world practice.

This supplement reviews efforts by researchers and clinicians to gather the information necessary to maximize optimal care for adult patients with ADHD. With the increasing trend toward broader recognition of adult ADHD, the availability of long-acting stimulant formulations, and the knowledge on how to use these agents effectively, clinicians are poised to help patients achieve and maintain better outcomes that extend throughout their adult years.

REFERENCES